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PCB PHASEOUT - An Economical Opportunity for Reducing Your Risk

What are PCBS?

PCBs is the abbreviation for polychlorinated biphenyls, which in pure form are viscous liquids. Used extensively before 1970, their manufacture was banned because of their long-term environmental toxicity and extreme persistence. A principle use of PCBs was in durable electrical equipment such as transformers and capacitors. Other uses were not uncommon such as in plastics, hydraulic systems, paints, inks, and some carbon papers. Although the manufacture was banned, the continued use of PCBs in totally enclosed durable equipment such as transformers and capacitors was allowed if these items were carefully managed to preclude spills and assure eventual disposal in the proper manner.

What is the risk of keeping my current PCB equipment in service?

Today the equipment still in service

that contain PCBs are 25 years old or greater. Most of such equipment is beginning to reach the end of its reliable lifetime and consequently is more prone to leakage and rupture than in the past. It is estimated that PCB transformer spills will increase at a rate of 3.3% per year and capacitor spills at 0.75% per year. The USEPA and the Illinois EPA are cooperating to convince owners of PCB containing equipment to phase out these equipment to protect public health and the environment as well as to eliminate the owners increasing economic and liability risk which is inherent in continued use of such equipment.

What is the difference in cost between PCB and non-PCB equipment?

While there is no typical spill, costs for cleanup of a PCB transformer spill often range from $20,000 to $100,000. In comparison a non-PCB transformer spill ranges from seven to thirteen times less expensive ($1,500 to $15,000). The cost to retrofill a PCB transformer ranges from $70 to $150 per gallon. For equipment only slightly contaminated with PCBs the cost may be as low as $4 to $8 per gallon. There are also service providers which do on-site detoxification at costs typically about $5 to $20 per gallon. For capacitors, the outright replacement cost is about $700 to $900 per capacitor. The above costs represent typical removal, disposal and equipment replacement expenses.

It is therefore not hard to see that the costs, of precluding a PCB spill by PCB phaseout, are small compared to cleaning up a spill.

What other problems are associated with continued use of PCB equipment?

Compliance costs are an additional incentive. Continued use of PCBs is only allowed if that use is carefully managed. This includes frequent inspections, specific marking requirements and often the isolation of PCB equipment as required by federal law (40 Code of Federal Regulations part 761). Such management costs are not inconsequential. Failure to perform and fully document such management activity can result in significant fines in addition to your time to resolve the issue. Penalty amounts often range from $200 to $25,000 per violation and significant mismanagement can result in many violations for each piece of equipment. In comparison the management costs for non-PCB equipment is very much less because it is not regulated.

PCB phaseout is a question of pay now or pay later, the longer phaseout is delayed the greater the accrued management costs and the higher the risk of a spill or enforcement.

Although the economic arguments are persuasive, the safety benefits are also significant. While PCBs themselves are toxic and persistent enough to merit intensive regulation, when PCBs are subjected to sufficient heat such as in a fire, extremely toxic Dioxins and Furans can be formed. In a fire situation these can be spread via smoke and soot resulting in contamination of considerable extent. Several notable examples are known where PCB laden smoke containing potent Chlorinated Dioxins and Furans contaminated the interior of large office buildings. Those buildings were subsequently uninhabitable for years due to the extensive cleanup that was necessary. In one instance the building ventilation system drew in smoke from a fire located outside the building. No reasonable person wants to expose friends, neighbors, employees, customers or tenants to such significant health risks if it can be avoided.

Of the 8,984 spills reported in Illinois over the last five years, 98 of them have involved PCBs. Although the risk of a leak, spill, fire or other emergency may seem to be a rather remote probability, it is increasing with time and deserves serious consideration by PCB equipment owners along with continuing management costs in comparison to making the move to being PCB free.

For additional health, cost and compliance information on PCBs, including a summary of management regulations and management checklists call, write or fax to *Illinois Environmental Protection Agency, Office of Chemical Safety, PCB Phaseout, P.O. Box 19276, Springfield, Illinois 62794-9276, 217-782-3637, FAX 217-782-1431.* If you are reluctant to identify yourselves to a government agency, many trade associations are willing to forward requests and information anonymously.

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Aug-95 25936 300